

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM
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B350 Clark's Nutcracker *Nucifraga columbiana*
Family: Corvidae Order: Passeriformes Class: Aves

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

A common resident in mountain ranges at high elevations, 1500-3650 m (4900-12,000 ft), mostly above ponderosa pine habitat. In the south, found in the San Bernardino, San Gabriel, San Jacinto, and Panamint Mts., and on Mt. Piños. Also inhabits the Sierra Nevada and Cascades, White and Warner Mts., Siskiyou and Trinity Mts., and south to Glenn Co. (Grinnell and Miller 1944). Prefers Jeffrey, lodgepole, and eastside pine, pinyon-juniper, juniper, and subalpine conifer habitats. Closely tied to pine seeds for food. A sporadic visitor to lowlands in fall and winter. Invasions of lowlands in these seasons apparently result from poor cone crops (Davis and Williams 1957, 1964). May wander far from usual montane habitats, sometimes to desert regions, even to the coast. Breeds on the west slope of the Sierra Nevada only occasionally, but regularly moves across from east slope in late summer and fall (Gaines 1977b).

SPECIFIC HABITAT REQUIREMENTS

Feeding: Eats mostly pine seeds during breeding season (Bent 1946). Balance of year supplements pine seeds with insects, berries, eggs and nestlings of birds, and carrion. Obtains seeds from cone on tree or on ground; hammers cones apart with bill. Gleans bark and foliage for other food; hawks insects (Giuntoli and Mewaldt 1978). Caches seeds for later use (Tomback 1977, 1980).

Cover: High altitude forests of whitebark, foxtail, limber, lodgepole, Jeffrey, bristlecone pine provide cover. Descends to pinyon pine forests east of the crest of Sierra Nevada for foraging and breeding.

Reproduction: Nests in pines, junipers, and firs, usually about 6 m (20 ft) above ground, but nests 2 m (6 ft) to as high as 24 m (80 ft) have been found (Mewaldt 1956).

Water: Eats snow in winter (Dixon 1934), probably as a source of water.

Pattern: Open, high-elevation pine forests broken by meadows and rock outcrops are preferred habitats. In years of winter invasions of lowlands, many habitats used.

SPECIES LIFE HISTORY

Activity Patterns: Yearlong, diurnal activity.

Seasonal Movements/Migration: Searches pine forests widely for ripe cones, regularly descending to lower pine belt in summer and fall. Winters wherever pine nuts can be found. In spring, once again returns to highest elevation pine forests to search for food.

Home Range: Dixon (1934) reported foraging 0.8 to 2.4 km (0.5 to 1.5 mi) from nest in Mono Co.

Territory: Mewaldt (1956) found 1 breeding territory of 0.85 ha (2.1 ac) in Montana.

Reproduction: Breeds from late February into August, with peak activity in April and May. Pair nests solitarily, often when snow still covers ground. Lays 2-4 eggs; average 3. Incubation 16-18 days. Young altricial and tended by both parents; leave nest at approximately 22 days (Harrison 1978).

Niche: Often preys on eggs and nestlings of birds and on small mammals (Mulder et al. 1978). Preyed upon by northern goshawks. May cache thousands of pine seeds on south-facing slopes in summer and fall for later feeding. Abandoned seed caches may germinate (Ehrlich et al. 1988).

REFERENCES

- Bent, A. C. 1946. Life histories of North American jays, crows, and titmice. U.S. Natl. Mus. Bull. 191. 495pp.
- Davis, J., and L. Williams. 1957. Irruptions of the Clark's nutcracker in California. Condor 59:297-307.
- Davis, J., and L. Williams. 1964. Irruptions of the Clark's nutcracker in California. Wilson Bull. 76:10-18.
- Dixon, J. B. 1934. Nesting of the Clark nutcracker in California. Condor 36:229-234.
- Ehrlich, P. R., D. S. Dobkin, and D. Wheye. 1988. The birder's handbook. Simon and Schuster, New York. 785pp.
- Gaines, D. 1977b. Birds of the Yosemite Sierra. California Syllabus, Oakland. 153pp.
- Garrett, K., and J. Dunn. 1981. Birds of southern California. Los Angeles Audubon Soc. 408pp.
- Giuntoli, M., and L. R. Medwaldt. 1978. Stomach contents of Clark's nutcrackers collected in western Montana. Auk 95:595-598.
- Grinnell, J., and A. H. Miller. 1944. The distribution of the birds of California. Pac. Coast Avifauna No. 27. 608pp.
- Harrison, C. 1978. A field guide to the nests, eggs and nestlings of north American birds. W. Collins Sons and Co., Cleveland, OH. 416pp.
- Mewaldt, L. R. 1956. Nesting behavior of the Clark nutcracker. Condor 58:3-23.
- Mulder, B. S., B. B. Schultz, and P. W. Sherman. 1978. Predation on vertebrates by Clark's nutcrackers. Condor 80:449-451.
- Tomback, D. F. 1977. Foraging strategies of Clark's nutcracker. Living Bird 16:123-161.
- Tomback, D. F. 1980. How nutcrackers find their seed stores. Condor 82:10-19.
- A. C. 1946.